

Request for Experimental Authority

Iridium Satellite LLC (“Iridium”) is a limited liability company with headquarters in McLean, VA. Iridium seeks experimental authority to add the MiniCarb cubesat as a point of communication as described below.

The MiniCarb is a joint 6U cubesat mission by Lawrence Livermore National Laboratory (“LLNL”) and NASA's Goddard Space Flight Center for space-based observation of atmospheric greenhouse gases from a low-Earth-orbiting cubesat. It will be launched on the STP-27VP mission coordinated by the United States Department of Defense Space Test Program, which is currently scheduled for the end of May 2019. The estimated on-orbit lifetime of the cubesat is three years.

Iridium requests experimental authority for use of a single Iridium modem model 9523, to be used aboard the MiniCarb, to transmit to space stations in Iridium’s “Big LEO” constellation. The technical characteristics of these transmissions will be identical to the technical characteristic of Iridium’s already-licensed space station transmissions in the 1618.725–1626.5 MHz band.¹

Iridium’s space station constellation is licensed under Call Sign S2110. Because Iridium will be operating under the parameters of its license, no operating parameters, other than effective radiated power, were used in the form that this exhibit accompanies. The only change from Iridium’s licensed operations is that Iridium will be adding the MiniCarb-based modem as a point of communication. Iridium’s space station license does not cover intersatellite communications in the 1618.725–1626.5 MHz band.

The MiniCarb will be nominally 500km, 45 degrees inclination. LLNL anticipates that the NTIA authorization for the MiniCarb will be issued by early May 2019.

¹ Iridium’s constellation is comprised of 66 satellites, any one of which may be used as part of the experiment at any point in time.